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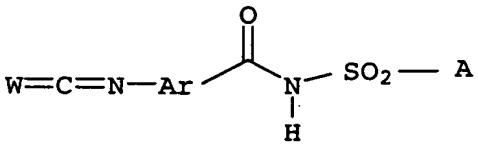
We claim:

1. A process for preparing phenyl iso(thio)cyanates of the formula I



(I)

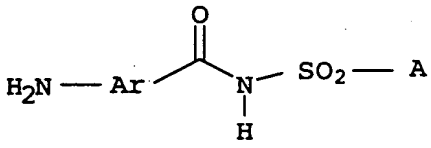
where the variables are as defined below:

W is oxygen or sulfur,

Ar is phenyl which may be mono- or polysubstituted by the following groups: hydrogen, halogen, C_1-C_4-haloalkyl or cyano,

A is a radical derived from a primary or secondary amine or is NH_2,

which comprises reacting a compound of the formula II



(II)

where the variables Ar and A are as defined above or its HCl adduct with phosgene, thiophosgene or diphosgene.

2. A process as claimed in claim 1, wherein the HCl adduct of the compound II is used.

3. A process as claimed in claim 1 or 2, wherein from 0.9 to 2 molar equivalents of phosgene, thiophosgene or diphosgene are used, based on the compound II.

4. A process as claimed in any of the preceding claims, wherein the reaction of the hydrogen chloride adduct of the compound II is carried out in the presence of activated carbon.

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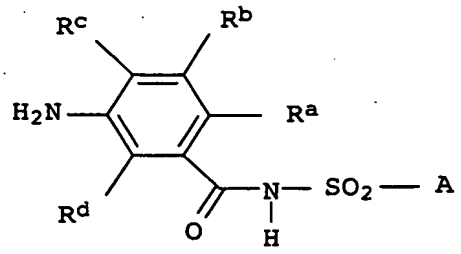
5. A process as claimed in any of the preceding claims, wherein a compound of the formula IIA



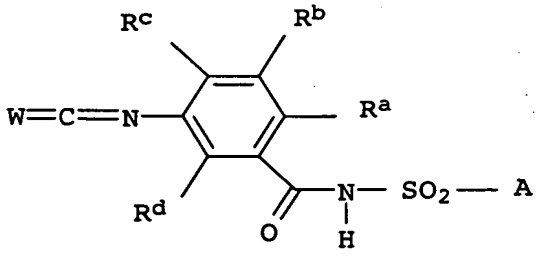
(IIA)

where

R^a, R^b, R^c and R^d independently of one another are hydrogen, halogen, C_1-C_4-haloalkyl or cyano and

A is as defined above

or its HCl adduct is reacted with phosgene, thiophosgene or diphosgene, giving a compound of the formula IA



(IA)

where the variables R^a, R^b, R^c, R^d, A and W are as defined above.

6. A process as claimed in any of the preceding claims, wherein the radical A in formula I is $-N^1R^2$,

where the variables R^1 and R^2 are as defined below:

R^1 and R^2 independently of one another represent hydrogen, C_1-C_{10}-alkyl, C_2-C_{10}-alkenyl or C_2-C_{10}-alkynyl which may be unsubstituted or substituted by one of the following radicals: C_1-C_4-alkoxy, C_1-C_4-alkylthio, CN, NO_2, formyl, C_1-C_4-alkylcarbonyl, C_1-C_4-alkoxycarbonyl, C_1-C_4-alkylaminocarbonyl, C_1-C_4-dialkylaminocarbonyl, C_1-C_4-alkylsulfinyl, C_1-C_4-alkylsulfonyl,

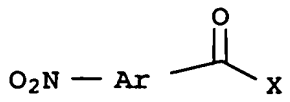
C_3-C_{10}-cycloalkyl, 3- to 8-membered heterocyclyl having one, two or three heteroatoms selected from the group consisting of O, S, N and a group NR^6 (where R^6 is hydrogen, C_1-C_6-alkyl, C_3-C_6-alkenyl or C_3-C_6-alkynyl), phenyl, which for its part may have 1, 2, 3 or 4 substituents selected from the group consisting of halogen, C_1-C_4-alkyl, C_1-C_4-alkoxy, C_1-C_4-fluoroalkyl, C_1-C_4-alkyloxycarbonyl, trifluoromethylsulfonyl, C_1-C_3-alkylamino, C_1-C_3-dialkylamino, formyl, nitro and cyano,

C_1-C_{10}-haloalkyl, C_2-C_{10}-haloalkenyl, C_2-C_{10}-haloalkynyl, C_3-C_8-cycloalkyl, C_3-C_{10}-cycloalkenyl, 3- to 8-membered heterocyclyl having one to three heteroatoms selected from the group consisting of O, S, N and a group NR^6 (where R^6 is hydrogen, C_1-C_6-alkyl, C_3-C_6-alkenyl or C_3-C_6-alkynyl), phenyl or naphthyl, where C_3-C_8-cycloalkyl, C_3-C_{10}-cycloalkenyl, 3- to 8-membered heterocyclyl, phenyl and naphthyl may for their part have 1, 2, 3 or 4 substituents selected from the group consisting of halogen, C_1-C_4-alkyl, C_1-C_4-alkoxy, C_1-C_4-fluoroalkyl, C_1-C_4-alkyloxycarbonyl, trifluoromethylsulfonyl, formyl, C_1-C_3-alkylamino, C_1-C_3-dialkylamino, phenoxy, nitro and cyano, or

R^1 and R^2 together form a saturated or partially unsaturated 5- to 8-membered nitrogen heterocycle which for its part may be substituted by C_1-C_4-alkyl, C_1-C_4-alkoxy and/or C_1-C_4-haloalkyl and may have one or two carbonyl groups, thiocarbonyl groups and/or one or two further heteroatoms selected from the group consisting of O, S, N and a group NR^6 (where R^6 is as defined above) as ring members.

7. A process as claimed in claim 1, wherein the process additionally comprises the following steps:

i) reaction of an aroyl compound of the formula III



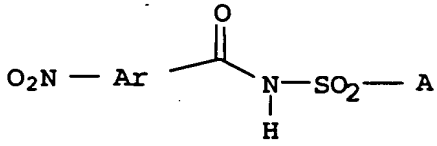
(III)

in which the variable Ar is as defined above and X is halogen, OH or C_1-C_4-alkoxy with a sulfamic acid amide of the formula IV

$$H_2N\text{-}SO_2\text{-}A \qquad (IV),$$

where A is as defined above and

ii) reduction of the N-aroylsulfamic acid amide, obtained in step i), of the formula V



(V)

where Ar and A are as defined above, giving a compound of the formula II.

8. A process as claimed in claim 7, wherein in step (ii) the reduction is carried out in the presence of catalytic amounts of transition metals or transition metal compounds.

9. A process as claimed in claim 7, wherein in step (ii) the reduction is carried out in the presence of iron and at least one C_1-C_4-carboxylic acid.

10. A process as claimed in claim 7, wherein in step (ii) the reduction is carried out in the presence of Raney nickel and hydrogen.

11. A phenyl iso(thio)cyanate of the formula I as defined in claim 1.

12. A phenyl iso(thio)cyanate of the formula IA as defined in claim 5, wherein R^a is fluorine, chlorine or cyano, R^c is hydrogen, fluorine or chlorine and R^b and R^d are each hydrogen.

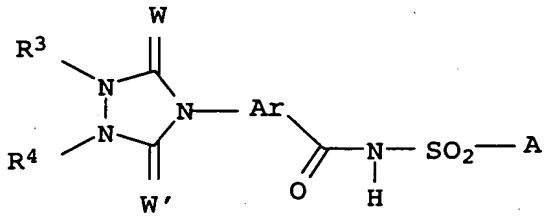
13. A phenyl iso(thio)cyanate of the formula IA as defined in claim 5, wherein A is a radical of the formula NR^1R^2 where R^1 and R^2 are as defined in claim 6.

14. A phenyl iso(thio)cyanate of the formula IA as claimed in claim 12, wherein R^1 and R^2 independently of one another are hydrogen, C_1-C_6-alkyl which is optionally substituted by a substituent selected from the group consisting of halogen, cyano, C_1-C_4-alkoxy, C_1-C_4-alkoxycarbonyl, C_1-C_4-alkylthio, C_3-C_8-cycloalkyl, furyl, thienyl, 1,3-dioxolanyl, phenyl which for its part is optionally substituted by halogen or C_1-C_4-alkoxy,

C_2-C_6-alkenyl, C_2-C_6-alkynyl, C_3-C_8-cycloalkyl or phenyl which is optionally substituted by 1 or 2 substituents selected from the group consisting of halogen, C_1-C_4-alkyl, C_1-C_4-fluoroalkyl, C_1-C_4-alkoxy, C_1-C_4-alkoxycarbonyl, nitro and C_1-C_3-dialkylamino, naphthyl or pyridyl or

R^1 and R^2 together form a five-, six- or seven-membered saturated or unsaturated nitrogen heterocycle which may optionally contain a further heteroatom selected from the group consisting of N, a group NR^6 (where R^6 is as defined above) and O as ring member and/or which may be substituted by one, two or three substituents selected from the group consisting of C_1-C_4-alkyl and C_1-C_4-haloalkyl.

15. A process for preparing compounds of the formula VI



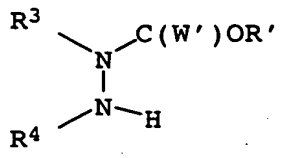
(VI)

where W, Ar and A are as defined in claim 1, W' is O or S and R^3 and R^4 independently of one another are hydrogen, cyano, amino, C_1-C_6-alkyl, C_1-C_6-haloalkyl, C_1-C_6-haloalkoxy, C_3-C_7-cycloalkyl, C_2-C_6-alkenyl, C_2-C_6-haloalkenyl, C_3-C_6-alkynyl, benzyl, OR^5 (where R^5 is hydrogen, C_1-C_6-alkyl, C_1-C_6-haloalkyl, C_3-C_7-cycloalkyl, C_2-C_6-alkenyl, C_3-C_6-alkynyl, unsubstituted or substituted phenyl or unsubstituted or substituted benzyl), C_1-C_3-cyanoalkyl, or R^3 and R^4 together with the nitrogen atoms to which they are attached form a four- to seven-membered heterocycle which is optionally interrupted by sulfur, oxygen, a group NR^6 (where R^6 is as defined above) or nitrogen and which is

unsubstituted or mono- or polysubstituted by halogen or C_1-C_4-alkyl,

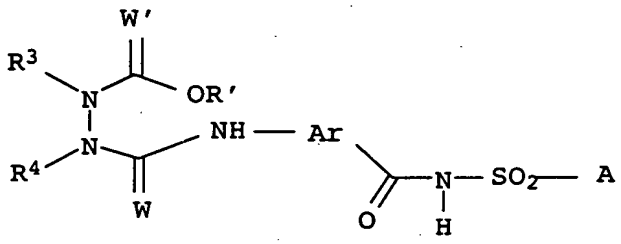
which comprises

(i) reacting a compound of the formula I as defined in claim 1 with an oxadiazinecarboxylic acid ester of the formula VII



(VII)

where W' is as defined above and R' is C_1-C_4-alkyl, giving a urea derivative of the formula VIII

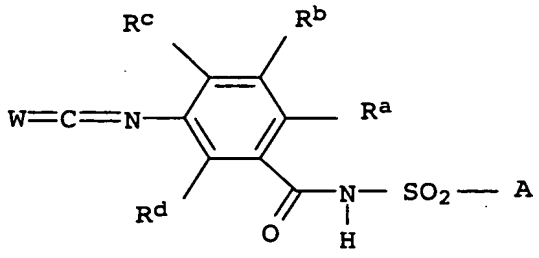


(VIII)

where the variables R^3, R^4, R', W, W', Ar and A are as defined above and

(ii) cyclizing the resulting intermediate VIII, giving a compound of the formula VI.

16. A process as claimed in claim 15, wherein the compound of the formula I used in step (i) is a compound of the formula IA



(IA)

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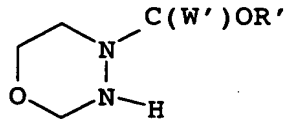
where the variables R^a, R^b, R^c, R^d, A and W are as defined above.

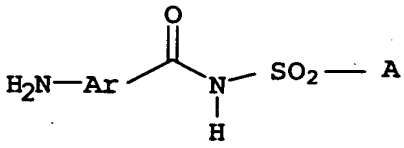
17. A process as claimed in claim 15, wherein the compound VII used in step (i) is a compound of the formula VII'



(VII')

where W' is O or S and R' is C_1-C_4-alkyl.

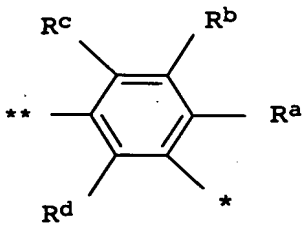
18. An aminobenzoylsulfamic acid amide of the formula II



(II)

where the variables are as defined below:

Ar is a group of the formula Ar-1



(Ar-1)

where R^a is halogen or cyano,
R^b is hydrogen,
R^c is halogen or hydrogen,
R^d is hydrogen;
* denotes the point of attachment of Ar to the C(O) group and
** denotes the point of attachment of Ar to the nitrogen atom of the amino group;

A is a group of the formula NR^1R^2,

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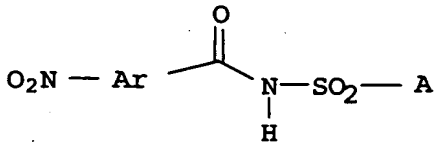
where one of the radicals R^1 or R^2 is hydrogen, C_1-C_6-alkyl, C_2-C_6-alkenyl or C_2-C_6-alkynyl and the other radical R^1 or R^2 is C_1-C_6-alkyl, C_3-C_6-cycloalkyl or phenyl.

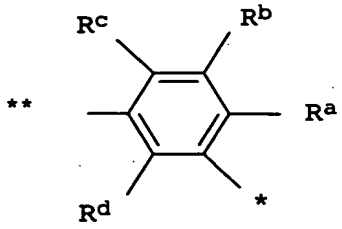
19. A nitrobenzoylsulfamic acid amide of the formula V



(V)

where the variables are as defined below:

Ar is a group of the formula Ar-1



(Ar-1)

where R^a is halogen or cyano,
R^b is hydrogen,
R^c is halogen or hydrogen,
R^d is hydrogen;
* denotes the point of attachment of Ar to the C(O) group and
** denotes the point of attachment of Ar to the nitrogen atom of the amino group;

A is a group of the formula NR^1R^2,
where one of the radicals R^1 or R^2 is hydrogen, C_1-C_6-alkyl, C_2-C_6-alkenyl or C_2-C_6-alkynyl and the other radical R^1 or R^2 is C_1-C_6-alkyl, C_3-C_6-cycloalkyl or phenyl.

20. A process for preparing aminobenzoylsulfamic acid amides of the formula II as claimed in claim 18, which process comprises the following steps:

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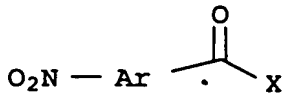
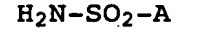
a) reaction of an aroyl compound of the formula III.



(III)

where Ar is as defined in claim 19 and X is halogen or C_1-C_4-alkoxy

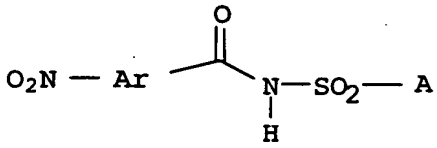
with a sulfamic acid amide of the formula IV



(IV),

where A is as defined in claim 19; and

b) reduction of the nitrobenzoylsulfamic acid amide, obtained in step a), of the formula V



(V)

where Ar and A are as defined in claim 19

to the aminobenzoylsulfamic acid amide of the formula II as claimed in claim 18.

21. A process as claimed in claim 20, wherein in step b) the reduction is carried out in the presence of catalytic amounts of transition metals or transition metal compounds.